

CLAIMS:

1. Use of an extract of *Zingiber* comprising at least one cysteine protease as a food improver for a protein containing food.
2. Use according to Claim 1 wherein the food is meat or fish.
3. Use according to Claim 1 wherein the food is a cereal, a legume, a nut or dairy product containing food.
4. Use according to Claim 3, wherein the cereal is wheat, oats, barley, rye, sorghum, or corn.
5. Use according to Claim 4, wherein the food is a bakery product, breakfast cereal or snack food.
6. Use according to Claim 4 or 5 wherein the extract is useful for the production of alcohol from cereal.
7. Use according to Claim 5, wherein the bakery product is selected from the list comprising: breads, cakes, muffins, crumpets, English muffins, pizza bases and buns.
8. Use according to any one of Claims 1 to 4, wherein the food is an animal food product.
9. Use according to any one of Claims 1 to 8, wherein the extract is from *Zingiber Officiale*.
10. Use according to any one of Claims 1 to 9, wherein the enzyme is extracted from the rhizome.

- 83 -

11. Use according to Claim 9 or 10, wherein the extract comprises *Zingibain*.
12. Use according to any one of Claims 1 to 11, wherein the nutritional value of the food is enhanced and/or absorption of the food is enhanced.
13. A process of treating a food product or a component material thereof with an extract *Zingiber* comprising at least one cysteine protease.
14. A process according to Claim 12, wherein the food or component is meat, a cereal, a legume, a nut or dairy product.
15. A process according to Claim 13 wherein the food is a bakery product.
16. A process according to Claim 13, wherein the component is flour.
17. A food or food component treated with or comprising an extract of *Zingiber* including at least one cysteine protease.
18. A food according to Claim 17, wherein the food is meat.
19. A food according to Claim 18, wherein the meat has a reduced fat content, a more tender and/or juicy texture, and/or has a higher water content than the corresponding untreated meat.
20. A food according to Claim 19 wherein the percentage water content is increased in an amount of from about 1% to about 5%.
21. A food according to Claim 19 wherein the fat content is reduced in amount of from about 1% to about 5%.

- 84 -

23. A food product according to Claim 19, wherein the food is a cereal containing food or snack food.
24. A food according to Claim 19, wherein the food is pasta.
25. A food according to Claim 24, wherein the cereal containing food is a bakery product.
26. A food according to Claim 24 wherein the bakery product is selected from the group comprising bread, cake, muffin, crumpet, English muffin, pizza base and buns.
25. A food according to Claim 23, wherein the bakery product is bread, wherein the bread has an improved texture and/or crust.
27. A food according to Claim 17 wherein the food is an animal food product.
28. A food according to any one of Claims 22 to 27, wherein the food product has reduced allergenicity to the relevant population in comparison to a corresponding untreated food.
29. A food according to any one of Claims 17 to 28, wherein the food or component has an increased shelf-life in comparison to a food or component not so treated.
30. A food according to any one of Claims 16 to 27, wherein the food has increased nutritional value and/or increased absorption in comparison to a food not so treated.
31. A pharmaceutical and/or health supplement formulation comprising an extract of *Zingiber* comprising at least one cysteine protease.
32. A formulation according to Claim 31, which comprises one or more excipients.

- 85 -

33. A probiotic formulation suitable for human consumption comprising one or more bacteria and/or yeast capable of synthesising *Zingibain in vivo*.
34. An extract of *Zingiber* comprising at least one cysteine protease for use in treatment.
35. Use of an extract of *Zingiber* comprising at least one cysteine protease or a composition comprising the same in the manufacture of a medicament for the treatment of an inflammatory disease.
36. Use according to Claim 35, wherein the inflammatory disease is gluten intolerance, such as Celiac disease, ulcerative colitis, inflammatory bowel disease and/or Crohn's disease.
37. A method of treatment comprising administering to a person a therapeutically effective amount of an extract of *Zingiber* comprising at least one cysteine protease.
38. A method according to Claim 37 for the treatment of an inflammatory disease.
39. A method according to Claim 35, wherein the inflammatory disease is gluten intolerance, such as Celiac disease, ulcerative colitis, inflammatory bowel disease, Crohn's disease or infection by a pathogenic agent.